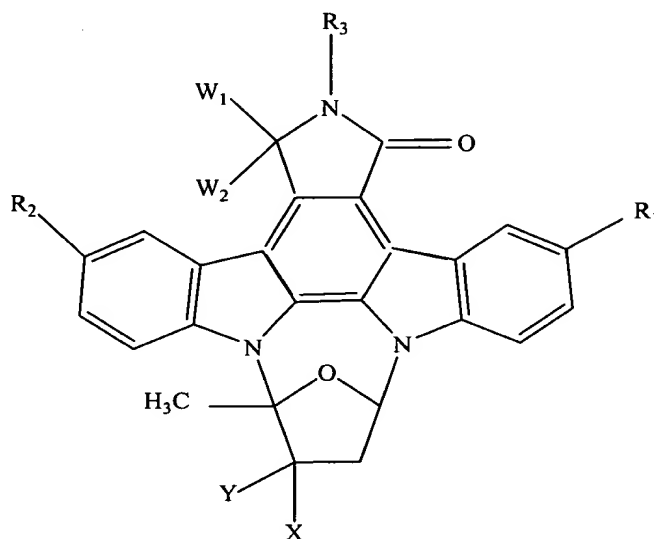


This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. *(currently amended)* A compound of formula (I):



wherein:

one of R^1 and R^2 is selected from the group consisting of:

a) $-\text{CO}(\text{CH}_2)_j\text{R}^4$, wherein j is 1 to 6, and R^4 is selected from the group consisting of:

1) halogen;

2) $-\text{NR}^5\text{R}^6$, wherein R^5 and R^6 independently are hydrogen, substituted lower alkyl, unsubstituted lower alkyl, substituted aryl, unsubstituted aryl, substituted heteroaryl, unsubstituted heteroaryl, substituted aralkyl, unsubstituted aralkyl, lower alkylaminocarbonyl, or lower alkoxy carbonyl; or R^5 and R^6 are combined with the nitrogen atom to which they are attached to form a heterocyclic group selected from the group consisting of pyrrolidinyl, piperidinyl, piperidino, morpholinyl, morpholino, thiomorpholino, N-methylpiperazinyl, indolyl, and isoindolyl;

3) N_3 ;

- 4) $-\text{SR}^{27}$, wherein R^{27} is selected from the group consisting of:
- i) hydrogen;
 - ii) substituted lower alkyl;
 - iii) unsubstituted lower alkyl;
 - iv) substituted aryl;
 - v) unsubstituted aryl;
 - vi) substituted heteroaryl;
 - vii) unsubstituted heteroaryl;
 - viii) substituted aralkyl;
 - ix) unsubstituted aralkyl;
 - x) thiazolinyl;
 - xi) $-(\text{CH}_2)_a\text{CO}_2\text{R}^{28}$, wherein a is 1 or 2, and R^{28} is selected from the group consisting of: hydrogen and lower alkyl; and
 - xii) $-(\text{CH}_2)_a\text{CONR}^5\text{R}^6$; and
- 5) OR^{29} (wherein R^{29} is hydrogen, substituted lower alkyl, unsubstituted lower alkyl, or CO_2R^{30} (wherein R^{30} is hydrogen, lower alkyl, substituted aryl, unsubstituted aryl, substituted heteroaryl, or unsubstituted heteroaryl));
- b) $-\text{CH}(\text{OH})(\text{CH}_2)_b\text{R}^{4A}$, wherein b is 1 to 6 and R^{4A} is hydrogen or the same as R^4 ;
 - c) $-(\text{CH}_2)_d\text{CHR}^{31}\text{CO}_2\text{R}^{32}$, wherein d is 0 to 5, R^{31} is hydrogen, $-\text{CONR}^5\text{R}^6$, or CO_2R^{33} (wherein R^{33} is hydrogen or lower alkyl), and R^{32} is hydrogen or lower alkyl;
 - d) $-(\text{CH}_2)_d\text{CHR}^{31}\text{CONR}^5\text{R}^6$;
 - e) $-(\text{CH}_2)_k\text{R}^7$, wherein k is 2 to 6, and R^7 is halogen, CO_2R^8 (wherein R^8 is hydrogen, lower alkyl, substituted aryl, unsubstituted aryl, substituted heteroaryl, or unsubstituted heteroaryl), CONR^5R^6 , substituted aryl, unsubstituted aryl, substituted heteroaryl, unsubstituted heteroaryl, OR^9 (wherein R^9 is hydrogen, substituted lower alkyl, unsubstituted lower alkyl, acyl, substituted aryl, or unsubstituted aryl), ~~SR^{27B} (wherein R^{27B} is the same as R^{27})~~, $\text{NR}^{10}\text{R}^{11}$ (wherein R^{10} and R^{11} are the same as R^5 and R^6) or N_3 ;
 - f) $-\text{CH}=\text{CH}(\text{CH}_2)_m\text{R}^{12}$ wherein m is 0 to 4, and R^{12} is hydrogen, lower alkyl, CO_2R^{8A} (wherein R^{8A} is the same as R^8), $-\text{CONR}^5\text{R}^6$, substituted aryl, unsubstituted

aryl, substituted heteroaryl, unsubstituted heteroaryl, OR^{9A} (wherein R^{9A} is the same as R⁹), or NR^{10A}R^{11A} (wherein R^{10A} and R^{11A} are the same as R⁵ and R⁶);

- g) -CH-C(CO₂R^{33A})₂, wherein R^{33A} is the same as R³³;
- h) -C≡C(CH₂)_nR¹³, wherein n is 0 to 4, and R¹³ is the same as R¹²;
- i) -CH₂OR⁴⁴, wherein R⁴⁴ is substituted lower alkyl;

and the other of R¹ or R² is selected from the group consisting of

j) hydrogen, lower alkyl, halogen, acyl, nitro, NR¹⁴R¹⁵ (wherein R¹⁴ or R¹⁵ is hydrogen or lower alkyl, and the other is hydrogen, lower alkyl, acyl, carbamoyl, lower alkylaminocarbonyl, substituted arylaminocarbonyl or unsubstituted arylaminocarbonyl);

k) -CH(SR³⁴)₂, wherein R³⁴ is lower alkyl or alkylene;

l) -CH₂R³⁵, wherein R³⁵ is OR³⁶ (wherein R³⁶ is tri-lower alkyl silyl in which the three lower alkyl groups are the same or different, or is the same as R²⁹), or SR³⁷ (wherein R³⁷ is the same as R²⁷);

m) -CO(CH₂)_qR¹⁶, wherein q is 1 to 6, and R¹⁶ is the same as R⁴;

n) -CH(OH)(CH₂)_eR³⁸, wherein e is 1 to 6, and R³⁸ is the same as R^{4A};

o) -(CH₂)_fCHR³⁹CO₂R⁴⁰, wherein f is 0 to 5, R³⁹ is the same as R³¹ and R⁴⁰ is the same as R³²;

p) -(CH₂)_rR¹⁷, wherein r is 2 to 6, and R¹⁷ is the same as R⁷;

q) -CH=CH(CH₂)_tR¹⁸, wherein t is 0 to 4, and R¹⁸ is the same as R¹²;

r) -CH=C(CO₂R^{33B})₂, wherein R^{33B} is the same as R³³;

s) -C≡C(CH₂)_uR¹⁹, wherein u is 0 to 4, and R¹⁹ is the same as R¹³;

R³ is hydrogen, acyl, or lower alkyl;

X is selected from the group consisting of:

- a) hydrogen;
- b) formyl;
- c) lower alkoxy carbonyl;
- d) -CONR²⁰R²¹, wherein:
R²⁰ and R²¹ independently are:
hydrogen;
lower alkyl;

-CH₂R²², wherein R²² is hydroxy, or
-NR²³R²⁴ (wherein R²³ or R²⁴ is hydrogen or lower alkyl, and the other is hydrogen, lower alkyl, or the residue of an α-amino acid in which the hydroxy group of the carboxyl group is excluded, wherein said α-amino acid is glycine, alanine, proline, glutamic acid, or lysine, or R²³ and R²⁴ are combined with the nitrogen atom to which they are attached to form a heterocyclic group selected from the group consisting of pyrrolidinyl, piperidinyl, piperidino, morpholinyl, morpholino, thiomorpholino, N-methylpiperazinyl, indolyl, and isoindolyl); and

e) -CH=N-R²⁵, wherein R²⁵ is hydroxy, lower alkoxy, amino, guanidino, or imidazolylamino;

Y is hydroxy, lower alkoxy, aralkyloxy, or acyloxy; or

X and Y combined represent, -X-Y-, =O, -CH₂O(C=O)O-, -CH₂OC(=S)O-, -CH₂NR²⁶C(=O)- (wherein R²⁶ is hydrogen or lower alkyl), -CH₂NHC(=S)O-, -CH₂OS(=O)O-, or -CH₂OC(CH₃)₂O-; and

W¹ and W² are hydrogen, or W¹ and W² together represent oxygen;

wherein said substituted aryl, said substituted heteroaryl, said substituted aralkyl, or said substituted arylaminocarbonyl comprises 1 to 3 independent substitutions selected from the group consisting of lower alkyl, hydroxy, lower alkoxy, carboxyl, lower alkoxy carbonyl, nitro, amino, mono-lower alkylamino, di-lower alkylamino, and halo;

wherein said substituted lower alkyl, said lower alkoxy, said substituted lower alkoxy carbonyl, and mono-lower alkylamino or di-lower alkylamino comprises 1 to 3 independent substitutions selected from the group consisting of hydroxy, lower alkoxy, carboxyl, lower alkoxy carbonyl, nitro, amino, mono-lower alkylamino, di-lower alkylamino, dioxolane, dioxane, dithiolane, and dithione;

wherein said heteroaryl is pyridyl, pyrimidyl, pyrrolyl, furyl, thienyl, imidazolyl, triazolyl, tetrazolyl, quinolyl, isoquinolyl, benzoimidazolyl, thiazolyl or benzothiazolyl;

or a pharmaceutically acceptable salt thereof.

2. (original) The compound of claim 1 wherein:

a) one of R^1 and R^2 is selected from the group consisting of $-(CH_2)_kR^7$, $-CH=CH(CH_2)_mR^{12}$, $-C\equiv C(CH_2)_nR^{13}$, $-CO(CH_2)_jSR^{27}$ and $-CH_2OR^{44}$, wherein R^{44} is methoxymethyl, ethoxymethyl, or methoxyethyl;

and the other of R^1 and R^2 is selected from the group consisting of $-(CH_2)_rR^{17}$, $-CH=CH(CH_2)_tR^{18}$, $-C=C(CH_2)_uR^{19}$, $NR^{14}R^{15}$, hydrogen, halogen, nitro, $-CH_2O$, substituted lower alkyl, unsubstituted lower alkyl, $-CO(CH_2)_qSR^{27}$, $-CH_2R^{35}$, wherein R^{35} is OR^{36} , and $-CH_2SR^{37}$, wherein R^{37} is selected from the group consisting of lower alkyl, pyridyl, and benzimidazole;

b) k and r are each 2, 3, or 4;

c) j and q are each 1 or 2;

d) R^7 and R^{17} are:

1) selected independently from the group consisting of: phenyl, pyridyl, imidazolyl, thiazolyl, or tetrazolyl; or

2) selected pairwise, from the group consisting of:

i) $-CO_2R^8$ and CO_2R^{8A} , where R^8 and R^{8A} , independently, are hydrogen, methyl, ethyl, or phenyl;

ii) $-OR^9$ and $-OR^{9A}$, where R^9 and R^{9A} , independently, are hydrogen, methyl, ethyl, phenyl, or acyl;

iii) $-SR^{27B}$, where R^{27B} is selected from the group consisting of unsubstituted lower alkyl, 2-thiazoline, and pyridyl; and

iv) $-NR^{10}R^{11}$ and $-NR^{14}R^{15}$, where R^{10} , R^{11} , R^{14} , and R^{15} , independently, are selected from the group consisting of hydrogen, methyl, ethyl, phenyl, carbamoyl, and lower alkylaminocarbonyl;

e) R^{27} is selected from the group consisting of substituted lower alkyl, unsubstituted lower alkyl, substituted phenyl, unsubstituted phenyl, pyridyl, pyrimidinyl, thiazole, and tetrazole;

f) R^{36} is selected from the group consisting of methoxymethyl, ethoxymethyl, and methoxyethyl;

g) m, n, t and u each is 0 or 1; and

h) R^{12} , R^{13} , R^{18} , and R^{19} are independently selected from the group

consisting of hydrogen, methyl ethyl, phenyl, pyridyl, imidazole, thiazole, tetrazole, $-\text{CO}_2\text{R}^8$, $-\text{OR}^9$, and $\text{NR}^{10}\text{R}^{11}$, wherein R^8 , R^9 , R^{10} , and R^{11} each is hydrogen, methyl, ethyl, or phenyl.

3. *(original)* The compound of claim 2, wherein R^3 is hydrogen or acetyl, X is hydroxymethyl or lower alkoxy carbonyl, Y is hydroxy or acetyloxy, and W^1 and W^2 are hydrogen.

4. *(original)* The compound of claim 3, wherein X is methoxycarbonyl, Y is hydroxy, and R^3 is hydrogen.

5. *(previously presented)* The compound of claim 3 wherein:

one of R^1 and R^2 is selected from the group consisting of methoxycarbonylvinyl, ethoxycarbonylvinyl, styryl, 2-pyridylvinyl, 4-pyridylvinyl, 2-pyridylethyl, 4-pyridylethyl, phenylethyl, methoxypropynyl, hydroxypropynyl, $-\text{COCH}_2\text{SEt}$, $-\text{C}\equiv\text{CCH}_2\text{NMeBn}$, $-\text{CH}=\text{CHEt}$, $-(\text{CH}_2)_2\text{SMe}$, $-(\text{CH}_2)_2\text{S-2-thiazoline}$, $-(\text{CH}_2)_3\text{SMe}$, $-\text{CH}=\text{CH-2-imidazole}$, $(\text{CH}_2)_2\text{OC(=O)H}$, methoxymethoxymethyl, ethoxymethoxymethyl, methoxyethoxymethyl, and 2-hydroxyethyl; and

the other of R^1 and R^2 is selected from the group consisting of hydrogen, halogen, methoxycarbonylvinyl, ethoxycarbonylvinyl, styryl, 2-pyridylvinyl, 4-pyridylvinyl, 2-pyridylethyl, 4-pyridylethyl, phenylethyl, nitro, amino, N-ethylurea, methoxypropynyl, hydroxypropynyl, $-\text{COCH}_2\text{SEt}$, $-\text{C}\equiv\text{CCH}_2\text{NMeBn}$, $-\text{CH}=\text{CHEt}$, $-(\text{CH}_2)_2\text{SMe}$, $-(\text{CH}_2)_2\text{S-2-thiazoline}$, $-(\text{CH}_2)_3\text{SMe}$, $-\text{CH}_2\text{OMe}$, $-\text{CH}_2\text{OEt}$, $-\text{CH}_2\text{SEt}$, pyridylthiomethyl, $-\text{CH}_2\text{S-2-benzimidazole}$, $-\text{CH}=\text{CHEt}$, $-\text{CH}=\text{CH-2-imidazole}$, $-(\text{CH}_2)_2\text{OC(=O)H}$, methoxymethoxymethyl, ethoxymethoxymethyl, methoxyethoxymethyl, and 2-hydroxyethyl.

Claims 6-22 *(canceled)*